REMARKS

[0001] The Office Action rejected Claims 1-30 under 35 U.S.C. 102(e) as anticipated by U.S. Patent Application No. 2004/0175020 to Bradski et al. (hereinafter "Bradski").

[0002] Claims 1, 11, 19, 29, and 30 have been amended in this response. Claims 2, 12, 13, 20, 21, and 24 have been canceled. No amendments to the specification have been made in this response.

AMENDMENTS TO CLAIMS 1, 11, 19, 29, AND 30

[0003] Claims 1, 7, 12, 13, 29, and 30 have been amended to include subject matter previously found in the canceled Claims 2, 12, 13, 20, 21, and 24. Each of amended Claims 1, 7, 12, 13, and 29 have different sets of limitations found originally in the dependent claims. Amended Claims 29 and 30 are of different types but include substantially the same subject matter. The amendments to the claims are fully supported by the specification since they include the subject matter of the canceled claims.

REJECTION OF CLAIMS 1-30 UNDER 35 U.S.C. §102(e)

[0004] The Examiner rejected Claims 1-30 under 35 U.S.C. §102(e) in view of Bradski. Applicant respectfully traverses the rejection of the dependent claim subject matter now part of amended Claims 1, 7, 12, 13, 29, and 30.

[0005] The Federal Circuit has made clear that "[a]nticipation under 35 U.S.C. §102 requires the disclosure in a single piece of prior art of each and every limitation of a claimed invention." *Apple Computer, Inc. v. Articulate Systems, Inc.*, 234 F.3d 14, 20, 57 U.S.P.Q.2d 1057, 1061 (Fed. Cir. 2000). Furthermore, the "identical invention must be shown in as complete detail [in the prior art] as is contained in the . . . claim" of the present invention. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed.Cir.1989). Applicant respectfully asserts that Bradski fails to teach or disclose each element of the claimed invention as required under 35 U.S.C. §102(e).

CLAIM 1

[0006] Amended Claim 1 recites, in pertinent part:

a collector configured to collect indicia representative of one of a plurality of **anatomical states** associated with different user body positions ~~of a user's body position~~ in relation to an electronic device for a user who maintains close proximity to the electronic device;
a determination module configured to determine a power state for the electronic device based on the indicia; and
a power control module configured to selectively adjust power supplied to subsystems of the electronic device to transition to the determined power state.
(Claim 1 emphasis added)

In particular, Claim 1 recites that the indicia one of a plurality of anatomical states. These anatomical states are associated with body positions. This subject matter was previously in Claim 2, now canceled.

[0007] The Office Action suggests that the elements of Claim 2, which incorporates Claim 1, are "literally present, [and] arranged as in the claim" in Bradski Fig. 3, ¶ 0029. Applicants respectfully disagree. Bradski fails to teach a plurality of anatomical states which in turn are associated with different user body positions.

[0008] Instead, Bradski is limited to teaching a plurality of user body **positions** within a zone, not **anatomical states** associated with body positions. See Bradski, ¶0029. Applicants submit that a body position, which is recited in Claim 1, and an anatomical state associated with a body position are fundamentally different. A body position relates to the presence or absence of the user within the zone, and specifically at different points within the zone.

[0009] In contrast, an anatomical state is a structural and organizational condition of the user. Anatomical comes from the word anatomy meaning the structure and organization of a living thing. See en.wikipedia.org/wiki/Anatomical. State means the "way something is with respect to its main attributes." See wordnet.princeton.edu/perl/webwn – search for state. Therefore, an anatomical state is a structural and organizational condition (or way) of the user (the living thing) with respect to the user's main attributes or characteristics. The main

characteristics are clearly described within the specification to mean the head, eyes, face, shoulders, hands, etc. See ¶¶70-71. Examples of anatomical states are listed along with corresponding characteristics of a user that the present invention detects. See Figure 4B. For example, a "Working" and a "Study" anatomical state differ in characteristics in that the "Working" anatomical state detects that a users' hands are near an input device. See ¶71.

[0010] Thus, while Bradski teaches image capture of a user within a zone in front of the electronic device and whether a user is paying attention, Bradski clearly does not teach anatomical states because Bradski fails to teach detection of an "Interrupt" or "Working" anatomical state including characteristics such as eyes diverted or hands near an input device. Bradski is able to detect whether a user is paying attention to a display device based on the periodic capturing of images. But, detection of diverted eyes is different because the time period during which monitoring must be done to detect eye diversion is much shorter. In addition, Bradski is silent with regards to detecting position of hands near input devices. Therefore, Bradski fails to teach or disclose "collect[ing] indicia representative of one of a plurality of anatomical states."

CLAIM 11

[0011] Amended Claim 11 recites, in pertinent part:

> a collector in communication with the **sensors** and configured to collect indicia representative of one of a plurality of anatomical states associated with different user body positions ~~of a user's body position~~ in relation to the display or human input device;
> a determination module configured to determine **a power state** based on the indicia, the power state is representative of one of a **plurality of hierarchical power states**; and
> (Claim 1 emphasis added)

[0012] In particular, Claim 11 recites that the indicia comes from a plurality of sensors. Bradski teaches a single sensor, the image capture device. Claim 11 also recites anatomical states which Bradski fails to teach, as explained above. Claim 11 also recites hierarchical power states. This subject matter was previously in Claim 3, now canceled.

[0013] The Office Action suggests that the elements of Claim 3, which incorporates Claim 1, are "literally present,[and] arranged as in the claim" in Bradski ¶ 0025, lines 9-16. Applicants respectfully disagree. Bradski fails to teach a plurality of hierarchical power states.

[0014] Bradski teaches multiple processor power states. However, Bradski does not clearly teach that these power states are hierarchical. Bradski points to an industry specification for power management, specifically relating to processor power states, but does not clearly teach that the power states are hierarchical as is recited in Claim 3. Hierarchical power states are organized such that each state adds more power and functionality. Examples of hierarchical power states are set forth in Figure 4A and ¶58-61. Hierarchical power states permit more fine-grained control over how quickly the computer system can transition from one power state to another. The transition latency is lower. Transition latency is one of the problems the present invention addresses. See specification ¶¶56, 56. Therefore, amended Claim 11 is allowable because Bradski fails to teach or disclose "anatomical states" or switching between a plurality of "hierarchical power states."

CLAIM 19

[0015] Amended Claim 19 includes the same subject matter added to Claim 11 as discussed above. In addition, amended Claim 19 recites, in pertinent part:

> measuring a **time interval** that a user maintains a body position such that the power state is determined such that the time interval **exceeds a latency period** associated with the determined power state;
>
> (Claim 1 emphasis added)

[0016] In particular, amended Claim 19 recites that selection of a power state is based in part on the measured time interval that a user maintains a current body position. The measurement is used to select a power state which will minimize the latency in restoring more power and functionality while conserving the most power. This subject matter was previously in Claim 6, now canceled.

[0017] The Office Action suggests that the elements of Claim 6 are "literally present, [and] arranged as in the claim" in Bradski Figure 6, steps 615, 620, and 625 and ¶0046. Applicants respectfully disagree. Bradski fails to teach measurement of a time interval and then use of that time interval in connection with a latency period to determine a proper power state.

[0018] Bradski teaches two different power states that are used depending on whether the user is paying attention for a short time or a long time. However, the time in Bradski is tied to the period used to capture images. See Bradski ¶0046, lines 8-10. Therefore, the time used in steps 610 and 615 must always be a factor of the image capture period. Furthermore, Bradski includes no teachings that the selection of the first level (step 620) or second level (step 625) is based on consideration of latency in restoring higher power consumption and functionality once the anatomical state of the user changes. There is no discussion of latency in Bradski. Minimizing latency is one of the limitations of the art that the present invention addresses.

[0019] In contrast, amended Claim 19 recites that the time interval that a user maintains a position is measured. Claim 19 recites an active measurement step rather than an accumulation of periods between sensing (image capture).

[0020] In addition, the measured time interval is compared to a latency period associated with the power states. See specification ¶88. Latency is defined as the time to transition to a new power state. See specification ¶56. The power state is determined such that the time interval is greater than the latency period. This means that the system will be able to get into the determined power state before another power state transition is expected. The idea here is that the system will not be busy transitioning into a power state (the latency period) when a user has changed anatomical states and desires increased power and functionality. Such behavior may be very annoying to a user. However, active measurement of the time interval and selection of a proper power state based on latency minimizes this problem. In this manner, the most power is saved while still minimizing the latency period. See specification ¶¶55, 56.

[0021] Therefore, Applicants submit that amended Claim 19 is allowable because Bradski fails to teach or suggest measuring of a time interval and determination of a next power state based on the time interval and a latency period.

CLAIMS 29 and 30

[0022] Amended Claims 29 and 30 include the same subject matter added to Claim 19 as discussed above. In addition, amended Claims 29 and 30 recites, in pertinent part:

> collecting indicia... the indicia polled from a plurality of sensors configured to detect characteristics of the user's body position;
> (Claim 1 emphasis added)

[0023] In particular, amended Claims 29 and 30 recite that the indicia are collected from a plurality of sensors. In contrast, Bradski teaches collection using a single sensor, an image capture device. See Bradski ¶23. The present invention teaches a variety of sensors that provide more robust anatomical information than a simple captured image. See Specification ¶46. In addition, the variety of sensors reduce the amount of processing overhead required to determine anatomical state. Bradski can determine whether a user is paying attention, but this requires computation intensive image analysis. See Bradski ¶¶34-36. Using a plurality of sensors, detection of an anatomical characteristic may simply require determination of a Boolean on or off value.

[0024] The plurality of sensors enable the present invention to determine certain characteristics not taught in Bradski. For example, the anatomical state "Working" includes a sensor reading that the user's hands are near an input device. Bradski fails to teach detection of this characteristic.

[0025] Furthermore Claim 29 is amended to recite "measuring a time interval that a user **has historically maintained** a body position." This language is slightly different from that used in Claim 19. This amendment seeks to clarify the concept involved in measuring the time interval and how this time interval relates to the latency period.

CLAIM 14

[0026] Applicants submit that Claim 14 is novel in view of Bradski. Claim 14 recites that the indicia collected are used to select a higher power state. Bradski only discusses reducing

power consumption. Applicant found nothing in Bradski teaching moving of the power state to a higher power state (more power use and more functionality). Applicants have explained in the specification that latency is a major concern in power management. Consequently, the present invention as recited in the claims concerns changing the power state to either a higher or a lower power state depending on the anatomical state of a user. By doing so among a plurality of power states, the present invention is able to minimize the latency experienced by conventional power management systems. Specifically, by increasing the power state based on indicia long latency is avoided. Because Bradski fails to teach or disclose selecting a power state that is higher than the present power state, Claim 14 is patentable.

[0027] As a result of the presented remarks, Applicant asserts that Claims 1, 3-11, 14-19, 22-23, and 25-30 are patentable and in condition for prompt allowance. Should additional information be required, the Examiner is respectfully asked to notify Applicant of such need. If any impediments to the prompt allowance of the claims can be resolved by a telephone conversation, the Examiner is respectfully requested to contact the undersigned.

Respectfully submitted,

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Kunzler & Associates
8 E. Broadway, Suite 600
Salt Lake City, Utah 84101
Telephone: 801/994-4646

David J. McKenzie
Reg. No. 46,919
Attorney for Applicant